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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,825	02/20/2004	Oleh B. Krutko	060999-0181	7050
9629	7590	05/19/2005	EXAMINER	
MORGAN LEWIS & BOCKIUS LLP			MAJ, LAM T	
1111 PENNSYLVANIA AVENUE NW			ART UNIT	
WASHINGTON, DC 20004			PAPER NUMBER	

2819

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary

Application No.

10/783,825

Applicant(s)

KRUTKO ET AL.

Examiner

LAM T. MAI

Art Unit

2819

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 16-18, 22, 23 and 25 is/are rejected.
- 7) ☒ Claim(s) 5-15, 19-21 and 24 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/25/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 5/25/04 has been considered by the examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 16-18, 22,23, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson et al (USP 6,873,211) and further in view of Lien (USP 5,470,766 and 5,652, 456).

Regarding claim1, Thompson discloses a circuit in figure 3 that teaches a HBT (314) and a FET (362) which the FET configured to current-limit a current-limit to the HBT (see col. 4-6). Thompson fails to teach HBT and FET having a contact epitaxial layer.

Art Unit: 2819

While, Lien discloses a in both (USP 5470766 and 5652456) that epitaxial layer is suitable for forming fast HBT and FET.

It would have been obvious to one of ordinary skill in the art at the time of the invention to integrate both HBT and FET having contact epitaxial layer in Thompson circuit to improve speed and fast reactance and better performance of the Thompson's circuit.

Regarding claim 2, Thompson's figure 3 does teach the FET is configured to current-limit a base current to the HBT.

Regarding claim 3, the figure 3 teaches the FET is un-gated.

Regarding claim 4, the figure 3 teaches the FET is gated.

Regarding claim 16, Thompson teaches the FET is selected from group MOSFET, MESFET, pHEMT and HEMT.

Regarding claim 17, Thompson discloses a circuit in figure 3 that teaches a HBT (314) and a FET (362) which the FET configured to current-limit a current-limit to the HBT (see col. 4-6). Thompson fails to teach HBT and FET having a contact epitaxial layer.

Regarding claim 18, Thompson's figure 3 teaches the FET is configured to current-limit a base current to the HBT.

Regarding claim 22, Thompson discloses a circuit in figure 3 that teaches a technique limit the current flowing through HBT (314) via a FET (362) which the FET configured to current-limit a current-limit to the HBT (see col. 4-6) during normal operation of the amplifier.

Art Unit: 2819

Regarding claim 23, Thompson also teaches that FET reduces a variation of output power to change in load phase.

Regarding claim 25, Thompson discloses a circuit in figure 3 that teaches a technique limit the current flowing through HBT (314) via a FET (362) which the FET configured to current-limit a current-limit to the HBT (see col. 4-6) during normal operation of the amplifier. Thompson also teaches that FET reduces a variation of output power to change in load phase.

Allowable Subject Matter

Claims 5-7 are objected to as being dependent upon a rejected base claim, but they would be considered for allowable if they are rewritten in independent form including all of the limitations of the base claim and any intervening claims. The features of objected claims are not taught or suggested in the prior art.

Claims 8-15 are objected to as being dependent upon a rejected base claim, but they would be considered for allowable if they are rewritten in independent form including all of the limitations of the base claim and any intervening claims. The features of objected claims are not taught or suggested in the prior art.

Claims 19-21 are objected to as being dependent upon a rejected base claim, but they would be considered for allowable if they are rewritten in independent form including all of the limitations of the base claim and any intervening claims. The features of objected claims are not taught or suggested in the prior art.

Art Unit: 2819

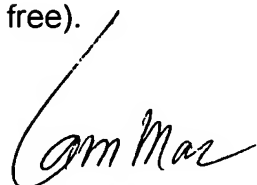
Claim 24 is objected to as being dependent upon a rejected base claim, but it would be considered for allowable if they are rewritten in independent form including all of the limitations of the base claim and any intervening claims. The feature of objected claim fails to teach or suggest in the prior art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAM T. MAI whose telephone number is (571)272-1807. The examiner can normally be reached on 6:00 am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Tokar can be reached on (571) 272-1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lam T. Mai
Art Unit 2819